



Memorandum

*To: Diane Salkie, EPA Region 2
Elizabeth Franklin, USACE*

From: Troy Gallagher, CDM Smith

Date: November 27, 2019

*Subject: Summary of Oversight of Chemical Water Column Monitoring
September 4–6, 2019
Lower Passaic River Restoration Project*

On behalf of the United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE), Kansas City District, CDM Federal Programs Corporation (CDM Smith) traveled to the Lower Passaic River Study Area (LPRSA) on Wednesday, September 4 through Friday, September 6, 2019 and provided field technical oversight for the second round of surface water sampling associated with the Chemical Water Column Monitoring (CWCM) program.

Water sampling was conducted at 5 different locations along the Lower Passaic River at the following river mile (RM) locations: RM 8.4, RM 10.2, RM 12.0, RM 13.5, and RM 15.8. Only one sample was collected from RM 15.8 from a mid-depth of the river. For the remaining four locations, two samples were collected from each location, one from the top of the RM location approximately 3 feet below the surface, and the second from the bottom, approximately 2 feet above the river bottom; samples were collected during both flood and ebb tides from each river mile station. Samples were collected using a peristaltic pump to pump water directly into the sample containers. Water quality parameters were recorded at the time of sampling for each location, and a vertical profile was performed before and after samples were collected. Field activities were conducted by Ocean Surveys, Inc. (OSI) and AECOM on behalf of the Cooperating Parties Group (CPG). Anchor QEA provided field support on behalf of the CPG. Split samples were collected by CDM Smith on September 5, 2019.

The fixed point monitoring locations are presented in Figure 1 from the CPG's quality assurance project plan (QAPP). Oversight was conducted in accordance with CDM Smith's Final QAPP for CWCM, dated September 3, 2019. Photographs of field activities are presented in Attachment 1. A copy of the field logbook notes is provided in Attachment 2. A copy of the sample tracking log is provided in Attachment 3.

Summary of Wednesday, September 4, 2019 Field Activities

Personnel in Attendance

Troy Gallagher – CDM Smith
Alexandra Allen – OSI
Jeff Pydeski – OSI
Clare Murphy-Hagan – AECOM
Mike Tatarelli – AECOM
Chris Yates – Anchor QEA

All personnel met at the 1 Madison Street boat dock in Rutherford, New Jersey. OSI and AECOM rode in OSI's boat, which was equipped with equipment for sampling. Anchor QEA and CDM Smith were aboard a separate boat to provide oversight.

All personnel mobilized to RM 8.4 to begin collecting the samples during the flood tide. Upon arrival to RM 8.4, YSI water quality parameters were recorded by AECOM personnel, and sample containers were labeled to prepare for collection. A vertical profile of water quality parameters was taken before sample collection as well. The peristaltic pump was turned on, and sample collection began from the bottom of RM 8.4. After all sample containers were filled, the YSI was raised and the tubing was replaced to begin collection from the top of the river. Water quality parameters were recorded, and then the sample collection began. All samples that were collected were placed in coolers, and then placed on the boat with Anchor QEA and CDM Smith. A vertical profile of water quality parameters was collected after sample collection to complete sampling activities at this location.

All personnel mobilized to RM 10.2 to begin collecting the samples during the flood tide. AECOM recorded water quality parameters from the YSI, and sample containers were labeled to prepare for collection. A vertical profile of water quality parameters was collected before sample collection as well. The peristaltic pump was turned on, and sample collection began from the bottom of the RM 10.2 location. After all sample containers were filled, the YSI was raised and tubing was replaced to begin collection from the top of the river. Water quality parameters were recorded, and then the sample collection began. A field duplicate was collected by AECOM at this location in addition to the field samples. A final vertical profile of water quality parameters was collected to finish up sampling activities at RM 10.2. Both crews returned back to the 1 Madison Street dock to hand off full coolers with samples to personnel in the trailer.

The crew waited on shore until the tide in the river changed so the collection of the ebb tide samples could begin. Due to the threat of an impending thunderstorm, AECOM planned to collect ebb tide samples from RM 13.5 due to its close proximity to the dock instead of going back to the locations samples in the morning, so evacuation could be swift if a storm began. Both boats mobilized to RM 13.5 and began preparations for sampling. OSI collected a vertical profile of water quality parameters and AECOM recorded water quality parameters and labeled bottleware. Samples were collected from the

Diamond_Alkali_OU4_CWCM_Oversight-September 4-September 6 2019

bottom of RM 13.5 during the ebb tide. The YSI was raised to the surface, and the tubing was replaced. Water quality parameters were recorded, and the samples were collected from the surface of RM 13.5. A final vertical profile of water quality parameters was collected to conclude the activities at RM 13.5.

All personnel mobilized to RM 12.0 to begin collecting the samples during the ebb tide. OSI collected a vertical profile of water quality parameters and AECOM recorded water quality parameters and labeled bottleware. Samples were collected from the bottom of RM 12.0 during the ebb tide. The YSI was raised to the surface, and the tubing was replaced. Water quality parameters were recorded, and the samples were collected from the surface of RM 12.0. A final vertical profile of water quality parameters was collected to conclude the activities at this location. Both boats returned to the 1 Madison Street dock to unload coolers and prepare coolers for shipment.

Summary of Thursday, September 5, 2019 Field Activities

Personnel in Attendance

Troy Gallagher – CDM Smith
Alexandra Allen – OSI
Jeff Pydeski – OSI
Clare Murphy-Hagan – AECOM
Mike Tatarelli – AECOM
Chris Yates – Anchor QEA

All personnel met at the 1 Madison Street boat dock in Rutherford, New Jersey. OSI and AECOM rode in OSI's boat, which was equipped with equipment for sampling. Anchor QEA and CDM Smith rode in a support boat for observation and oversight. All personnel mobilized downstream to RM 12.0.

All personnel mobilized to RM 12.0 to begin collecting the samples during the flood tide. AECOM recorded water quality parameters from the YSI, and sample containers were labeled to prepare for collection. A vertical profile of water quality parameters was taken before sample collection as well. The peristaltic pump was turned on, and sample collection began from the bottom of the RM 12.0 location. After all sample containers were filled, the YSI was raised and tubing was replaced to begin collection from the top of the river. Water quality parameters were recorded, and then the sample collection began. A final vertical profile of water quality parameters was collected to finish up sampling activities at RM 12.0

All personnel mobilized to RM 13.5 to begin collecting the samples during the flood tide. AECOM recorded water quality parameters from the YSI, and sample containers were labeled to prepare for collection. A vertical profile of water quality parameters was taken before sample collection as well. The peristaltic pump was turned on, and sample collection began from the bottom of the RM 13.5 location.

After all sample containers were filled, the YSI was raised and tubing was replaced to begin collection from the top of the river. Water quality parameters were recorded, and then the sample collection began. CDM Smith collected a split sample from the surface of RM 13.5 during flood tide sampling, including a field duplicate. AECOM alternated filling their bottles and filling the CDM Smith bottles to make sure both samples were representative of the sample location. The split sample was collected with the sample identification of 19O-CE02-T135-AS-CDM and 19O-CE02-T135-AS-CDM-100 for the sample and the duplicate, respectively. A final vertical profile of water quality parameters was collected to finish up sampling activities at RM 13.5, and both boats returned back to the field facility to wait for the change of tides.

During the time in between tides, Troy Gallagher packed all of the split sample containers in coolers and prepared them for shipment through FedEx. Surface water samples were sent to SGS AXYS laboratory to be analyzed for pesticides, PCBs, PAHs, and dioxin/furans; Katahdin Analytical Services was sent surface water samples to be analyzed for TOC, POC, TSS, and total and dissolved metals. Four coolers were dropped off at FedEx for overnight delivery.

No oversight was provided for the ebb tide sampling (at RM 8.4 and RM 10.2) during this day due to the priority of getting the sample coolers shipped to meet holding time requirements.

Summary of Friday, September 6, 2019 Field Activities

Personnel in Attendance

Troy Gallagher – CDM Smith

Alexandra Allen – OSI

Jeff Pydeski – OSI

Clare Murphy-Hagan – AECOM

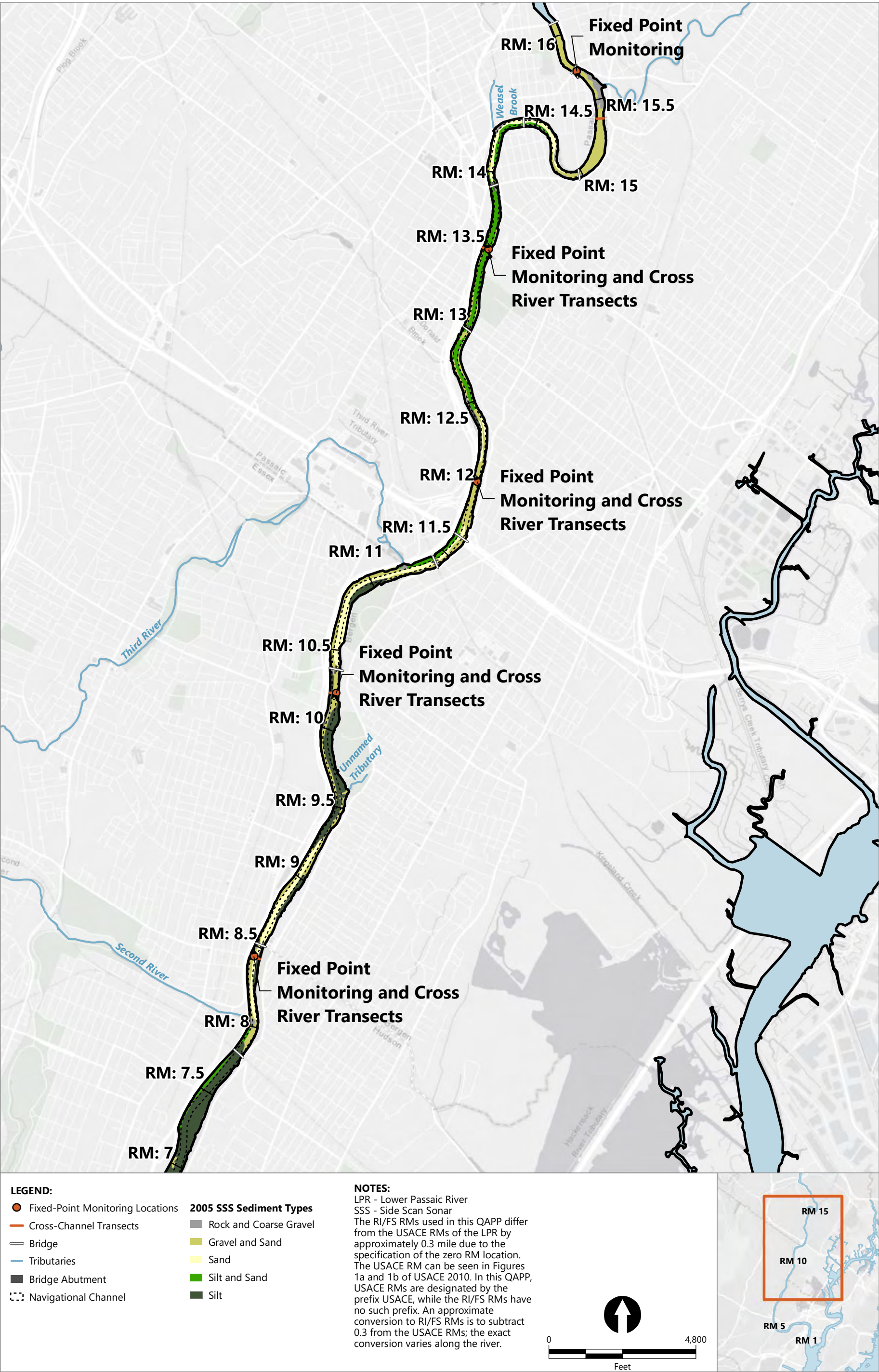
Mike Tatarelli – AECOM

Chris Yates – Anchor QEA

All personnel met at the 1 Madison Street boat dock in Rutherford, New Jersey. OSI and AECOM rode in OSI's boat, and Anchor QEA and CDM Smith provided oversight from a separate boat. Both physical and chemical events took place during this day; the chemical water column monitoring activities performed on September 6th are described below, while the physical water column monitoring activities are summarized in a separate field report.

Both boats departed the dock and headed to RM 15.8 to collect the final CWCM sample for this event. OSI collected a vertical profile of water quality parameters, and AECOM recorded the water quality parameters. AECOM collected only one sample from this location at a mid-depth, instead of two total samples like the other locations from top and bottom, per the QAPP. Samples were collected and a final vertical profile of water quality parameters was taken, completing the CWCM event.

Figure 1



Publish Date: 2019/05/21, 10:59 AM | User: dbaker
Filepath: \\Boston1\jobs\Passaic_CPG\DOCUMENTS\2019\Current_Conditions_Physical_WC_QAPP\source\RM7.8_to_DD_Map_monitoring_locations_FullExtent.mxd

Figure 1
Current Conditions Monitoring Locations
Field Sampling Plan Addendum
Current Conditions Monitoring Program - Physical Water Column Monitoring
Lower Passaic River Restoration Project

Attachment 1

Photographs of Field Activities



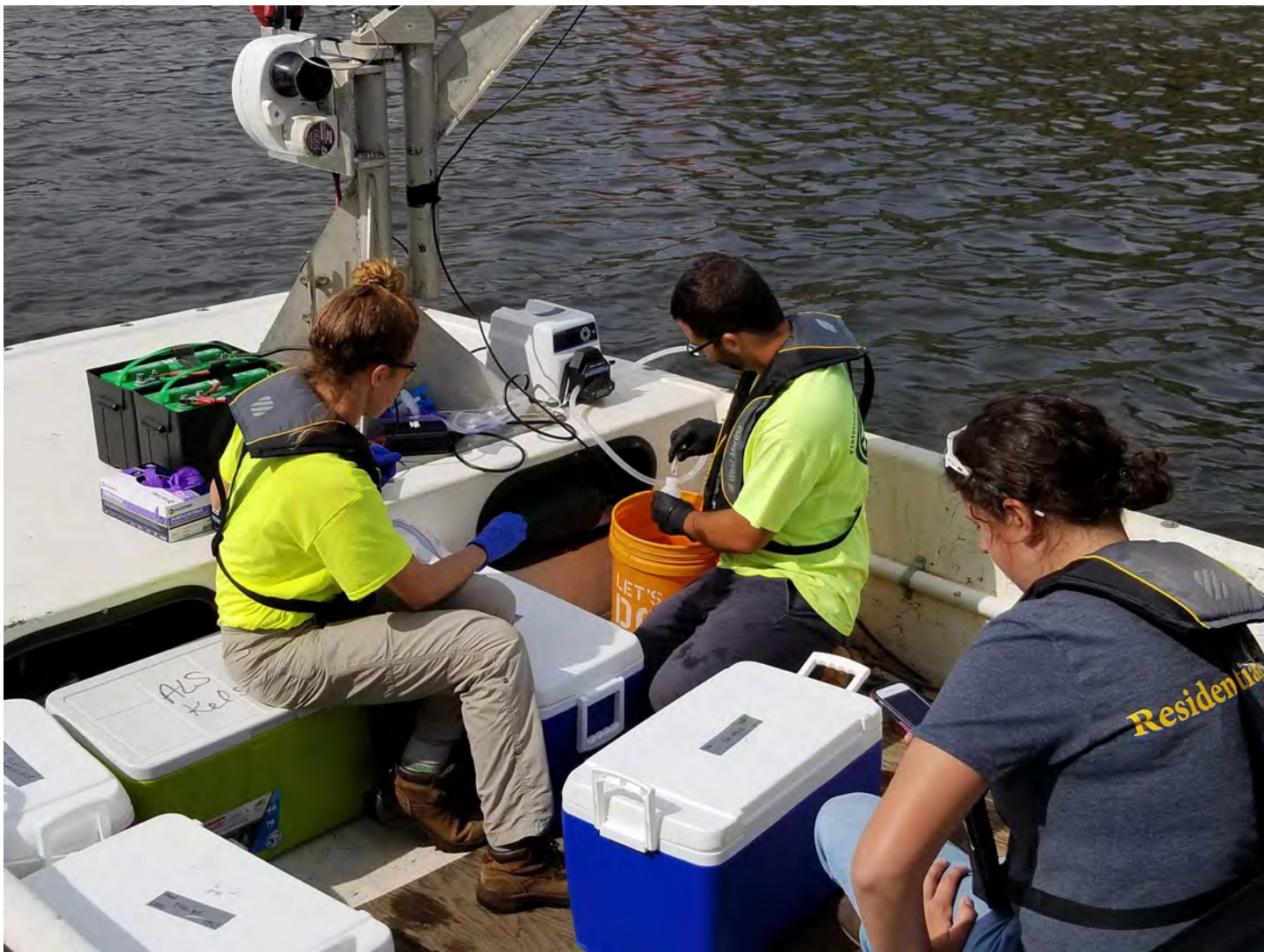
Photograph 1: OSI replacing tubing on YSI before sample collection.

09/04/2019



Photograph 2: AECOM filling sample containers at RM 12.0.

09/05/2019



Photograph 3: AECOM filling sample containers at RM 12.0.

09/05/2019



Photograph 4: AECOM collecting CDM Smith filtered split sample from RM 13.5.

09/05/2019



Photograph 5: AECOM collecting samples directly into sample containers from pump.

09/05/2019



Photograph 6: AECOM collecting samples from RM 15.8 during a light rain.

09/06/2019

Attachment 2

Field Logbook

Location Rutherford NJ Date 9/4/19
Project / Client Lower Passaic River / USACE
Diamond Alkali 004 / CWCM

7⁰⁰ Troy Gallagher (TG) arrive @
1 Madison St. dock and waits for
OSI crew to board boat.

Weather: 80°F, partly cloudy, windy

PPE: Level D, PFD

Purpose: Oversight of CWCM event

740 Chris Yates (Anchor QEA), Alexandra Allen and Jeff Pydeski (OSI) arrive and begin loading equipment onto boats.

8⁰⁰ Clare Murphy - Hagan and Mike Tatarrelli (AECOM) arrive on boat. H+S meeting conducted: boat safety and weather. AECOM + OSI will be on the sampling boat, Anchor QEA + CDM will be on observation boat.

8¹⁵ Depart dock and mobilize to RM 8.4

845 Arrive at RM 8.4. AECOM crew begins preparations for sampling. MS/MSD will be collected here by AECOM.

Waiting until 9:15 to begin collecting samples to work with the tide. CM and TG agree to take EPA split tomorrow @ RM 13.5 (flood tide).

9/4/19 *Rite in the Rain*

Location Rutherford NJ Date 9/4/19Project / Client Lower Passaic River / USACE
Diamond Alkali 004 / CWCM

- 9¹⁵ OSI performs vertical profile w/ YSI. AECOM labeling bottleware, and recording water quality parameters. Sample from bottom to be collected first.
- 9²⁰ Begin pumping from bottom and filling sample jars. Sample collected, for Flood tide at RM 8.4, bottom
- 9⁴⁵ Collect sample parameters and raise YSI and tubing to the surface. Replace tubing, and re-deploy YSI into water. Set up pump and collect water quality parameters.
- 10⁰⁰ Begin pumping and collection of samples for flood tide, RM 8.4, top.
- 10¹² Collect final water quality parameters. Depart from RM 8.4 and ~~20~~ after performing final vertical profile. Mobilize to RM 10.2
- 10²⁵ Arrive @ RM 10.2. AECOM will take a duplicate from the surface location here. OSI boat preparing equipment for sampling.

— 26 — 9/4/19

Location Rutherford NJ Date 9/4/19Project / Client Lower Passaic River / USACE
Diamond Alkali 004 / CWCM

- 10³⁰ Preparing tubing and labeling sample containers. Perform vertical profile. Water quality parameters taken.
- 10⁴³ Sample collected from bottom of RM 10.2, flood tide
- 10⁵⁵ Collect water quality parameters and raise YSI. Replace tubing and prepare for surface sample.
- 11⁰⁷ Samples collected from surface @ RM 10.2, flood tide. Final parameters taken and vertical profile performed. Depart RM 10.2 and head back to 1 Madison St. dock.
- 11³⁵
- 11⁵⁵ Arrive at dock and unload all coolers onto shore. Crew will take lunch.
- 14⁰⁰ TG back on-site at 1 Madison St. dock, waiting for crew to meet.
- 14³⁵ OSI, Anchor, AECOM, and CDM meet on dock and load up all equipment and coolers onto boats.
- 15⁰⁰ Depart dock and head to RM 13.5. Due to possible thunder in the afternoon, 13.5 will be sampled b/c it is close to the dock for evacuation.

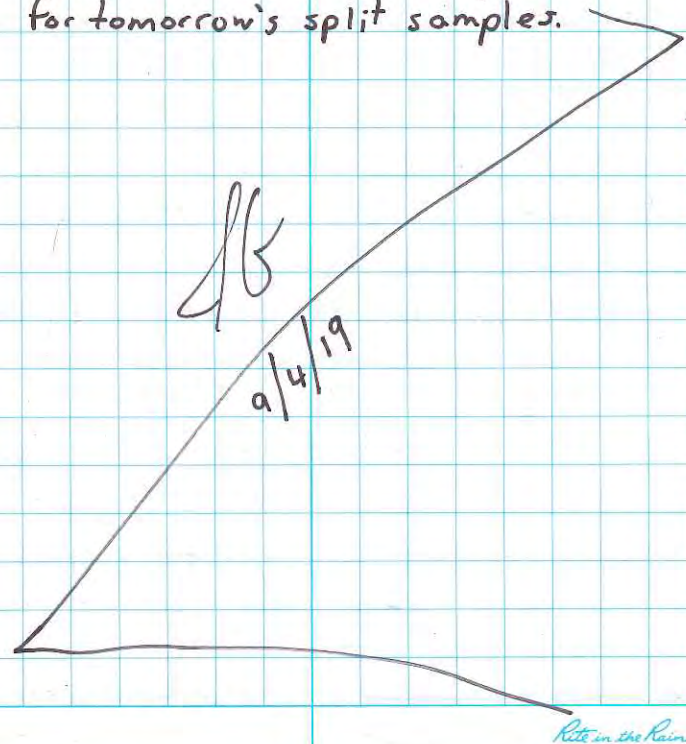
— 9/4/19 — 26 — *rite in the Rain*

Location Rutherford NJ Date 9/4/19Project / Client Lower Passaic River / USACE
Diamond Alkali OU4 / CWCM

- 15⁰⁵ Arrive at RM 13.5 and begin labeling bottleware and preparing for sampling.
- 15²⁷ Perform vertical profile and collect water quality parameters before beginning sampling.
- 15⁴⁰ Collect samples from the bottom of RM 13.5, ebb tide.
- 15⁵⁰ Pull up YSI and replace tubing. Prepare to collect next sample. Water quality parameters taken.
- 16⁰⁵ Samples collected from surface @ RM 13.5, ebb tide.
- 16¹⁵ Final parameters taken, and last vertical profile performed. Crew mobilizes towards dock to hand off full coolers. Then depart to RM 12.0
- 16³³ Arrive at RM 12.0. OSI performs vertical profile while AECOM labels bottleware. Water quality parameters collected.
- 16⁴³ Samples collected from bottom of RM 12.0, ebb tide.
- 16⁵⁷ Water quality parameters recorded and YSI brought to surface,

Location Rutherford NJ Date 9/4/19Project / Client Lower Passaic River / USACE
Diamond Alkali OU4 / CWCM

- tubing changed.
- 17⁰⁵ Samples collected from surface @ RM 12.0, ebb tide.
- 17²⁷ Last parameters and vertical profile performed. Both boats head out from RM 12.0 and back to 1 Madison St. dock.
- 18⁰⁰ TG offsite to Edison to get sample containers and print items for tomorrow's split samples.



Location Rutherford NJ Date 9/5/19Project / Client Lower Passaic River / USACE
Diamond Alkali OU4 / CWCM8⁴⁰ TG onsite at 1 Madison St. dock.

Weather: 85°F, partly cloudy

PPE: Level D, PFD

Purpose: Oversight of CWCM sampling including collection of split sample

8⁴⁵ TG begins labeling bottleware that will be used for sample collection, and preparing coolers.9¹⁵ All bottles labeled, coolers kept on Anchor AEA's boat. Meet up with crew. Alexandra Allen + Jeff Pydeski (OSI), Clare Murphy-Hagan + Mike Tatarelli (AECOM) will ride on OSI's boat. TG and Chris Yates (AEA) will ride on the observation boat.9²⁵ H+S meeting on dock given by MT.9³⁰ Both boats depart from dock and head towards RM 12.0.9⁴⁰ Arrive at RM 12.0 and wait for sampling time to begin preparations.10⁰⁸ Set up tubing and perform vertical profile. Water quality parameters recorded.10¹⁵ Samples collected from bottom of RM 12.0, flood tide. — 16 9/5/19Location Rutherford NJ Date 9/5/19Project / Client Lower Passaic River / USACE
Diamond Alkali OU4 / CWCM10²⁵ Parameters collected. YSI and tubing raised to surface. Tubing replaced. YSI redeployed, preparing for sample collection.10⁴⁰ Samples collected from surface @ RM 12.0, flood tide.10⁵⁵ Vertical profile completed. Both boats mobilize to 1 Madison dock to exchange coolers.11⁰⁵ Both boats mobilize to RM 13.5. CDM Smith will collect a split sample at the surface location @ 13.5, including a duplicate and MS/MSD.11¹⁵ Arrive at RM 13.5. AECOM prepares tubing while OSI performs vertical profile. Bottles are being labeled.11²⁷ AECOM collects samples from the bottom of RM 13.5, flood tide. Water quality parameters collected.11³⁷ Water quality parameters collected and YSI brought to surface to replace tubing. CDM split coolers handed off to OSI boat. Split samples will be collected at the same time as AECOM's samples by alternating bottleware.— 16 9/5/19*Rite in the Rain*

Location Rutherford NJ Date 9/5/19Project / Client Lower Passaic River / USACEDiamond Alkali OU4 / CWCM

11⁴⁵ TG boards OSI boat to observe the split sample collection. AECOM will fill all their filtered samples, then fill all CDM's filtered samples. Then AECOM will fill their remaining bottleware and switch to CDM's bottleware to complete sampling.

11⁵⁰ 190-CE02-T135-AS-CDM and 190-CE02-T135-AS-CDM-100 samples collected from surface @ RM 13.5, flood tide, as well as AECOM samples.

12²⁵ Final water quality parameters collected and vertical profile performed. Both boats mobilize to 1 Madison dock to bring samples on shore.

12⁵⁰ TG offsite to pack coolers for shipment today through FedEx.

15⁰⁰ All coolers packed, TG drives to FedEx to drop off coolers.

15³⁰ Coolers handed off to FedEx. TG will not be back onsite in time for second half of oversight, will continue tomorrow.

TG 9/5/19

Location Rutherford NJ Date 9/5/19Project / Client Lower Passaic River / USACEDiamond Alkali OU4 / CWCM

16⁰⁰ TG arrives at residence, speaks with Andy Bullard, and Clare, to discuss plans for tomorrow. TG will send emails to labs to alert shipment. Waiting for instructions on start time tomorrow.

TG
9/5/19

Rite in the Rain

Location Rutherford NJ Date 9/6/19Project / Client Lower Passaic / USACEDiamond Alkali 004 / PWCM + CWCM10⁰⁰ TG arrives at 1 Madison dock.

Weather: 70°F overcast

PPE: Level D, PFD

Purpose: Conclude oversight of CWCM and begin PWCM. Split samples to be taken for the PWCM event.

10¹⁵ TG labels bottleware in preparation for sampling. OSI crew is getting all equipment ready on boat.10³⁵ TG board boats on dock with Alex Allen + Jeff Pydeski (OSI), Chris Yates (AQEA), Clare Murphy-Hagan + Mike Tatarelli (AECOM). H+S briefing conducted. CDM splits will be conducted at 5 PWCM locations, and a dup and MS/MSD will be collected.11⁰⁰ Prepare to depart dock and head to first station to begin PWCM Event 19D. Steve Howe (AECOM) joins.11⁰⁷ Arrive @ RM 12.0. Waiting for OSI boat to arrive to begin PWCM sampling event. First CDM split will be collect at the surface location here. — LG 9/6/19Location Rutherford NJDate 9/6/19Project / Client LPR / USACEDiamond Alkali 004 / PWCM + CWCM11²⁵ AECOM setting up to sample @ RM 12.0. Labeling bottleware.

AQEA boat is anchored away from OSI boat while they get in position.

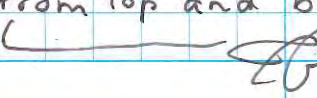
11³⁵ OSI deploys YSI @ P1 @ RM 12.0. No sample to be collected here.11⁴⁵ AECOM collects samples at P2 @ RM 12.0. CDM split sample also collected from the surface at this location 19D-CE02-T120-P2AS-CDM12⁰⁵ OSI deploys YSI at next point on RM 12.0 transect. AECOM prepares to collect samples from P4. CDM split will be collected from this location as well.19D-CE02-T120-P4BS-CDM12²⁰ AECOM to sample P6 @ RM 12.0, a CDM split will be collected also.12²⁵ Samples collected from P6 at RM 12.0. AECOM collects their samples as well as the CDM split.19D-CE02-T120-P6AS-CDM12³⁵ Both boats depart RM 12.0 and head to RM 13.5. — 9/6/19Rite in the Rain

Location Rutherford NJ Date 9/6/19Project / Client LPR/USACEDiamond Alkali OU4/PWCM + CWCM

- 12⁵⁰ Arrive at RM 13.5. OSI boats scouts transect while AECOM crew labels bottle ware.
- 13⁰⁰ OSI and AECOM setting up to begin sampling across transect. AECOM to collect first samples at P2 @ RM 13.5.
- 13⁰⁵ Samples collected @ P2 on RM 13.5.
19D-CE02-T135-P2BS-CDM
- 13²⁵ Samples collected from P4 @ 13.5.
19D-CE02-T135-P4AS-CDM +
19D-CE02-T135-P4AS-CDM-100
- MS/MSD volume also collected from this location.
- 13⁴⁵ Both boats head back to dock to end flood tide sampling.
- 14⁰⁰ TG offsite to buy ice and pack 2 coolers with all splits collected to be shipped for Sat. delivery.
- 15⁴⁵ TG drops both coolers off at FedEx for delivery, heads back to 1 Madison dock to await ebb tide CWCM + PWCM sampling.

 9/6/19
Location Rutherford NJ Date 9/6/19Project / Client LPR/USACEDiamond Alkali OU4/PWCM + CWCM

- 16⁰⁰ TG back onsite, waiting for OSI + AECOM crew to board boat. Heavy rains begin.
- 17⁰⁰ Board OSI boat and prepare to go to RM 15.8 for final CWCM sample.
- 17³⁰ Arrive @ RM 15.8. One sample to be collected by AECOM at mid-depth for CWCM.
- 17⁴⁰ Vertical profile performed. Sample to be collected at 8 ft. Water quality parameters taken. Sampler collected.
- 17⁵⁵ Final parameters and vertical profile performed. Depart from RM 15.8
- 18³⁰ Arrive @ RM 12.0 to begin PWCM sampling event for ebb tide. No more split samples will be collected today.
- 18⁴⁵ Begin measurements @ P1 w/ YSI
- 18⁵⁷ Arrive @ P2. YSI measurements taken. AECOM samples collected from top and bottom.

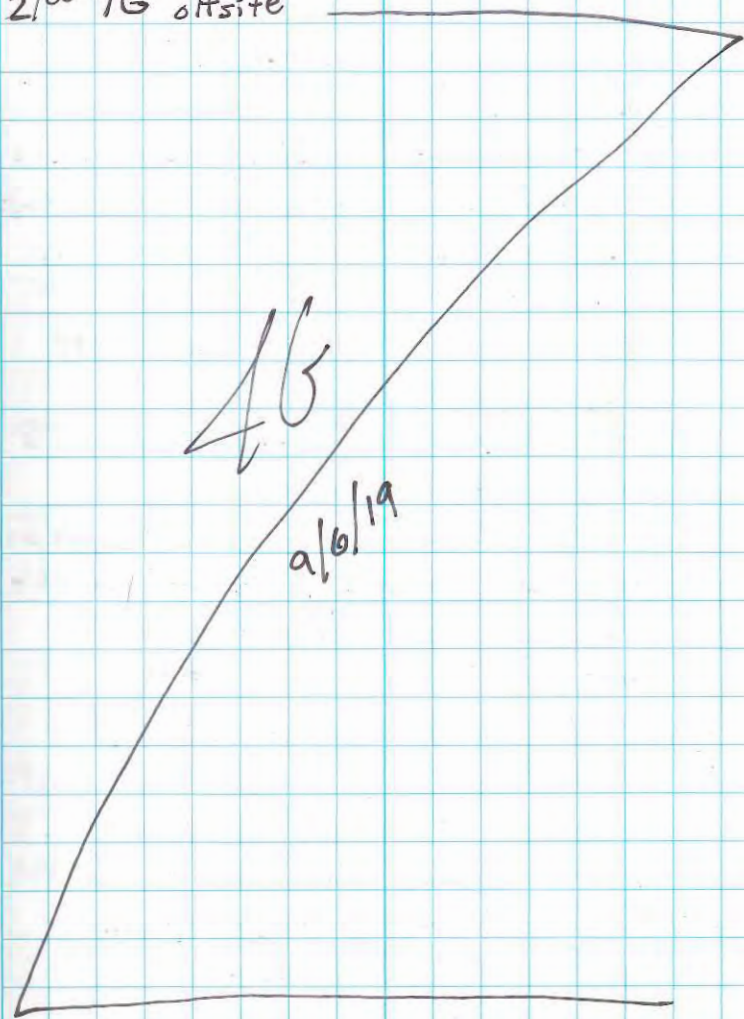
 9/6/19 *Rite in the Rain*

Diamond Alkali 0U4/PWCM+CWCM

- 19¹⁰ Vertical profile @ P3 RM 12.0
 19¹⁵ Vertical profile @ P4 completed. AECOM collects samples from top and bottom @ P4
 19²⁰ Profile @ P5 complete
 19³³ Profile @ P6 complete. AECOM collects samples from top & bottom of location ~~at~~ mid point only due to shallow water
 19⁴⁰ Depart RM 12.0 and head up to RM 13.5 for final sample collection.
 19⁵⁰ Arrive @ RM 13.5.
 19⁵⁷ Vertical profile @ P1 completed
 20⁰⁰ Profile @ P2 completed. AECOM collects samples from top and bottom of P2
 20¹⁵ Profile @ P3 completed
 20²⁰ Profile @ P4 completed. AECOM collects samples from surface and bottom.
 20³⁰ Profile @ P5 completed.
 20³⁵ Profile @ P6 completed. AECOM collects samples from top and bottom. — 9/6/19

Diamond Alkali 0U4/PWCM+CWCM

- 20⁴⁵ Profile @ P7 completed. Crew heads back to dock.
 21⁰⁰ TG offsite



Rite in the Rain

Attachment 3

Sample Tracking Log

SAMPLE TRACKING LOG

LDL VOC LAB: _____ INORGANIC CLP LAB: _____

CLP CASE NO: _____

ORGANIC CLP LAB: _____

SUBCONTRACT LAB: Katahdin

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	MATRIX	DEPTH (feet)	LDL VOC CLP NO.	ORGANIC CLP NO.	INORGANIC CLP NO.	SUBCONTRACT ANALYSIS	QA/QC
190-CE02-T135 -AS-CDM	9/5/19	11:50	SW	A	-	-	-	SSC, POC, DOC TAL Metals	MS/MSD
190-CE02-T135 -AS-CDM-100	↓	11:50	↓	A	-	-	-	↓	Duplicate

ANALYSIS SUMMARY: SSC = Suspended solid concentration / POC = particulate organic carbon / DOC = dissolved organic carbon / TAL Metals = Metals total and dissolved.

SAMPLE TRACKING LOG

LDL VOC LAB: _____ INORGANIC CLP LAB: _____

CLP CASE NO: _____

ORGANIC CLP LAB: _____

SUBCONTRACT LAB: SGS AXYS

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	MATRIX	DEPTH (feet)	LDL VOC CLP NO.	ORGANIC CLP NO.	INORGANIC CLP NO.	SUBCONTRACT ANALYSIS	QA/QC
190-CE02-T135 -AS-CDM	9/5/19	11:50	SW	A	-	-	-	D/F, PCBs, Pest, PAHs	ms/msd
190-CE02-T135 -AS-CDM-100	↓	11:50	↓	A	-	-	-	↓	Duplicate

ANALYSIS SUMMARY: D/F = Dioxin/Furans / PCBs = Polychlorinated Biphenyls / Pest = Organochlorine
Pesticides / PAH = polycyclic aromatic hydrocarbons